# Stock Screening With Walter Schloss

By Cara Scatizzi



any individual investors may not be familiar with the investment guru that Warren Buffett calls a "super investor." Walter J. Schloss studied under Ben Graham in 1935 and started his own fund in 1955. Schloss' son joined the fund in 1973 and subsequently renamed it Walter & Edwin Schloss Associates. During the 1956 to 2000 period, the fund earned a compounded annual rate of return of 15.7%, compared to the market's return of 11.2% annually over the same period.

Walter Schloss did not go to college and got his start doing clerical work for the financial firm Loeb Rhoades. He was encouraged to read Ben Graham's famous "Security Analysis" book and took two courses taught by Graham.

In 2001, Walter's son Edwin could not find any cheap stocks to buy, so the two closed the fund. Deciding the market was overvalued would prove to be a prudent move. Walter Schloss is now retired, but much can be gleaned from his investing philosophy and style.

## Investing Style

During a video conference with a number of analysts, Schloss summed up his investing style by saying, "I would rather buy the things the way they are, rather than the way you think they may be at a later date."

Adam Smith wrote about Schloss in his 1972 book "Supermoney" and said, "He has no connections or access to useful information...He looks up the numbers in the manuals and sends for the annual reports."

In addition to reading financial reports from the company, he subscribed to Value Line and used its investment research tools and reports to make buy and sell decisions.

Warren Buffett highlighted Schloss' investing style in an article written for the Columbia Business School Magazine called "The Superinvestors of Graham-and-Doddsville." Buffett said that Schloss "doesn't worry about whether it's January...whether it's Monday...whether it's an election year. He simply says if a business is worth a dollar and I can buy it for 40 cents, something good may happen."

# Finding Value Companies the Schloss Way

A disciple of Graham and his value investing technique, Schloss looked for stocks that were hitting new lows and those trading at a price lower than their book value per share. Schloss looked for companies having temporary problems, as these might be selling at a discount to their actual value. He avoided companies with debt and preferred that management own a solid portion of its own stock. He also liked stocks with a long history (10 years or more) and avoided investing in foreign companies.

## "Campbell Soup" Companies

Schloss favored companies with a long history and those he considered stable and well known. He preferred to invest in businesses he understood, and, in the same vein, he avoided new industries he knew little about and foreign stocks. He felt the financial statements and valuation ratios of foreign firms were hard to compare with companies in the U.S. because many used different reporting and accounting techniques.

### Company Management

Schloss liked managers to have a stake in the company. He felt that their interests were better aligned with investors if they had money on the line.

He also never spoke with company managers because he felt that it clouded his judgment and that management was not always truthful when talking with investors. He preferred to make decisions based on his own analysis of a company's reported financial statements.

#### Price Action

Schloss wouldn't buy a stock simply because it hit a new low, but he did use this as an initial screening criteria to find potentially undervalued stocks. He believed that a stock's price can fall to a new low either because the company is not being managed properly and its actual value has declined or because it is "on sale" and selling for a lower price than it is actually worth.

#### Book Value

Schloss looked at book value per share to determine if a stock was underpriced or fairly priced. Book value is the fair value of a company's assets that, theoretically, shareholders would receive if the company were liquidated (meaning it sold all of its assets and paid all of its debt). Value investors compare this number to the stock's current price to determine if the stock is overvalued or undervalued.

To calculate book value, you simply subtract the company's liabilities from its assets. Dividing the result by the number of shares outstanding, gives you the book value per share. Schloss looked for companies whose current stock price was below its book value per share.

## Diversification and Asset Allocation

In general, Schloss preferred stocks to bonds because of their growth potential. He also limited his holdings to 20% in one stock. At any given time, he would hold up to 100 different stocks in his portfolio. He weighted the stocks based on their perceived values, putting less money in positions he was less sure about.

## Placing Orders

Schloss used limit orders to purchase stocks, deciding on the price he was willing to pay.

### When to Sell

Schloss admitted that deciding



## Table 1. Translating Criteria for Use in a Screening Program

#### **Exchange-Listed**

Schloss looked for well-known companies that filed financial statements quarterly because he used these to evaluate the stocks. Exchange-listed stocks are required to file quarterly statements and must also meet minimum requirements of size, liquidity and financial strength. We eliminated all stocks in the database that are not traded on a U.S. exchange.

#### **Exclude ADRs**

ADRs, or American depositary receipts, are issued by a U.S. bank in place of the foreign shares of a company held in trust by that bank, and they are traded on U.S. exchanges. Foreign stocks are excluded because Schloss found them hard to evaluate and compare with U.S. companies. Schloss states that he does not invest in foreign stock. While ADRs must meet similar listing requirements as U.S. stock traded on U.S. exchanges, often there are tax and financial reporting issues that make them more complicated investments to evaluate.

#### **Exclude Financial Stocks**

Using book value per share as a cornerstone of evaluating stocks makes it difficult to include companies that hold large amounts of debt, such as banks and other financial institutions. The current market environment has also shown that the book value of many of the banks may not reflect the actual value: Many banks and financial institutions have written down the values of toxic assets and taken losses of billions of dollars in the process, making book value useless as a proxy for the company's liquidation value. For this reason, we exclude all stocks in the financial sector.

## Long Price History

While Schloss likes companies with a 10-plus-year history, most stock screening programs do not hold 10-plus years of financial statement and price data. We screened for stocks that had share prices greater than \$0 seven years ago to ensure the stock has been traded on an exchange for at least that long.

## Price Less Than Book Value per Share

Book value represents the liquidation value of a company if it sold all of its assets and paid off all of its debt. A low price-to-book-value ratio is the cornerstone for many value investing strategies. Schloss looks for companies with a price that is less than the book value per share. Theoretically, this means the price you pay is less than what you would receive if the company were liquidated.

### Price Near 52-Week Low

When used in tandem with other criteria, a stock at or near its 52-week low price can signal a possible bargain stock. It is important, however, to understand why the price has fallen. Is it due to a fundamental shift in the business or its financial state? Or did the stock take a hit because of outside factors such as overall sector, industry or market weakness? To quantify this criterion, we looked for stocks whose current price was within 10% of its 52-week low.

#### Insider Ownership

Insider ownership measures the percentage of shares outstanding that are owned by insiders in the company. Schloss simply wanted company management to own stock in the company. We quantified this by searching for companies with a higher insider ownership percentage than the median insider ownership for the entire database. We used a median figure as opposed to the average because incredibly high or incredibly low numbers can skew the average.

## Debt

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Schloss invested in companies that had no long-term debt because he saw this as a sign of financial health. We screened for this by setting long-term debt for the most recent quarter and fiscal year equal to zero.

when to sell a stock was difficult. He would try to get a 50% profit from holdings before selling. He would sometimes watch a stock continue

to rise after selling it, but he tried to keep emotions out of the decisions by using simple rules to make sell decisions. If a stock's price was falling and the company's fundamentals were sound, Schloss would buy more.



Table 2. Schloss Screen Criteria for Use With AAII's Stock Investor Pro

Data Category	Field	Operator	Factor	Compare To
Company Information	Exchange	Not Equal		Over the counter
Company Information	ADR/ADS Stock	Is False		
Company Information	Sector	Not Equal		Financial
Prices—Annual	Price Y7	>		0
Price and Share Statistics	Price	<		Book value/share Q1 (under Balance Sheet—Quarterly)
Price and Share Statistics	Price	<=	1,1	Price—low 52 week
Price and Share Statistics	Insider Ownership %	>		Median Insider Ownership % (under Medians, select Universal)
Balance Sheet—Annual	Long-term debt Y1	Equals		
Balance Sheet—Quarterly	Long-term debt Q1	Equals		0

## Screening With the Schloss Strategy

Unlike many financial gurus, Schloss never laid out his investment ideas specifically. Through reviewing various interviews with Schloss and observations about his approach from Wall Street insiders, we created a number of criteria that encompass his investing beliefs and ideas.

Table 1 discusses how you can use Schloss' philosophy in a stock screening program, while Table 2 lists the exact screening criteria as used in AAII's fundamental stock screening and research database program, Stock Investor Pro.

## Narrowing the Field

First, we excluded over-the-counter stocks as well as ADRs. Over-the-counter stocks are not traded on a stock exchange because they do not meet the requirements and do not have to follow the same financial statement filing rules as stocks listed on the NYSE, NASDAQ or American stock exchanges. Schloss also preferred U.S. companies. ADRs—American depositary receipts—are shares issued by a U.S. bank in place of the foreign shares of a company held in trust by that bank, and they are traded on the U.S. exchanges.

Schloss did not explicitly exclude any sector in his portfolio; however, because he uses the price-to-book-value ratio to evaluate companies, we decided to exclude the financial sector. Typically, banks hold very large amounts of debt, a key compo-

nent in the book value calculation. Essentially, the book value should tell you how much the company is worth after it pays all of its debt. For companies with high debt levels or sustained losses, such as financial firms, this number can be meaningless.

For example, during 2008 and 2009, banks have been writing down much of their debts. It is hard to know how much of the debt still on the books will be affected by future write downs as banks begin to reevaluate the value of so-called "toxic assets" (assets with a current market value much lower than their original value).

Finally, Schloss liked to invest in companies that have at least a 10-year history. However, with today's screening programs and Web sites, you may not be able to specify such a requirement going that far back.

## Finding Undervalued Companies

A company whose stock price is reaching or close to a new low can represent a bargain. For example, a strong company in the oil and gas sector might see its share price pulled down when another player in that sector makes a negative announcement. Additionally, a company's share price can be affected by an overreaction to its own negative news.

Keep in mind that some stocks might be fairly valued at a very low price. It is essential to determine if the stock's price has fallen due to a fundamental shift in the company's finances or its business, or because it has been a victim of overall sector or market weakness. This is why it is important to look at various criteria in tandem when making investment decisions.

If a company's stock price is at or near a new low and its price is less than its book value per share, it might have been dragged down by factors other than its own financial strength.

When the price per share is below the book value per share, value investors see a bargain. Book value represents a company's liquidation value and the share price reflects the current market value. When the share price is less than book value per share, you are paying less per share to buy the stock than you would receive (per share) if the company liquidated all of its assets and paid off its debt.

## Debt Free

The companies that Schloss liked had no long-term debt. Long-term debt is money the company owes but does not expect to pay off in the upcoming year. Companies with little or no debt have more cash on hand to meet current obligations as well as to invest in future expansion and growth.

This criterion makes it hard for certain types of firms to pass the screen—such as young companies and financial institutions, which typically carry large amounts of debt.



Table 3. Companies Meeting the Schloss Screening Criteria

Company (Exchange: Ticker)	Price (\$)	Book Value per Share (\$)	52-Wk Low Price (\$)	Insider Ownership (%)	Market Cap (\$ Mil)	5-Yr EPS Growth (%)	5-Yr Sales Growth (%)_	52-Wk Relative Strength Index	Industry
Avid Technology, Inc. (M: AVID)	9.14	13.31	8.40	18.8	3.4	(42.0)	12.4	(38)	Computer Peripherals
IKONICS Corporation (M: IKNX)	4.35	5.69	4.00	34.8	8.7	8.2	5.6	(21)	Photography
Nobility Homes, Inc. (M: NOBH)	7.25	10.32	7.03	65.6	29.5	(10.2)	(5.1)	(31)	Construction Services
PDI, Inc. (M: PDII)	3.04	7.61	2.80	35.3	43.2	(37.2)	(20.1)	(40)	<b>Business Services</b>
Tech/Ops Sevcon, Inc. (M: TO)	1.33	3.66	1.32	21.8	4.4	52.8	11,2	(69)	Electronic Instrum & Control
TSR, Inc. (M: TSRI)	1.66	2.93	1.55	40.7	6.7	(12.0)	(0.3)	(34)	Software & Programming

Source: AAII's Stock Investor Pro/Reuters Research, Inc. Data as of 3/31/2009.

#### Insider Ownership

Finally, Schloss wanted a company's managers and decision makers to hold shares in the company. He felt this aligned their motives with shareholders. One indicator of whether company management thinks the current stock price is over- or undervalued is the number of shares bought and sold by insiders. Typically, if insiders are buying a lot of shares, this sends the signal that they believe the stock is undervalued at the current price. The reverse cannot always be said when insiders are selling shares. Sometimes, insiders sell shares in or-

der to diversify or reallocate holdings in their personal portfolios.

Profile of Passing Companies Table 3 shows a list of companies meeting all of the screen criteria as of March 31, 2009. The data comes from AAII's fundamental stock screening program, Stock Investor

The six stocks that pass the Schloss screen criteria are wide ranging in industry, market capitalization (from \$3.4 million to \$43.2 million), insider ownership (as little as 18.8% to as high as 65.6%) and even book

value per share (2.93 to 13.31).

While earnings and sales growth are not part of the Schloss philosophy, it is interesting to see that over the last five years, most of the companies have seen negative growth in earnings per share and three have seen a negative growth in sales.

Finally, the relative strength index measures the stock's performance as compared to the S&P 500. Each stock has underperformed the S&P 500 significantly.

Let's look at one stock in particular: Avid Technology, which develops software to create graphics and special effects for films and advertisements. Avid operates in a fast-changing market sector and uses acquisitions to gain market share and introduce new products. The company was once a stronghold in the video-editing market. However, botched product upgrades, expensive software and new applications that were less than user-friendly opened the door for the competition, including Apple—who swooped in and convinced customers that their products were better. The loss of market share drove down sales and earnings per share.

On the other hand, Avid has shown progress in improving its products and still offers a low-cost alternative that is popular with students and low-budget filmmakers. In the future, Apple will continue to be a threat and Avid will need constant innova-

Table 4. Characteristics of the Schloss Companies

	Schloss Companies	All Exchange- Listed Stocks	S&P 500 Stocks
Book value per share (\$)	6.65	7.76	13.36
Price as % of 52-week low	1.08	1.47	1.34
Insider ownership (%)	35.1	9.3	1.0
Market cap (\$ Mil)	19.1	206.7	5,581.3
5-yr EPS growth (%)	(11.1)	4.7	11.1
5-yr sales growth (%)	2.7	12.7	10.1
Relative strength vs. $S&P (S&P = 0)$ (%)	(36)	(12)	-
Monthly Observations			
Average no. of passing stocks	14		
Highest no. of passing stocks	45		
Lowest no. of passing stocks	1		
Monthly turnover (%) Data as of 3/31/2009.	51.8		



tion to win back its lost share.

This simple example illustrates that you must research a company in depth before buying a stock to be sure you fully understand why it meets certain criteria. Will Avid's stock price rebound as it works out the kinks, upgrades its offerings and acquires companies? Or is Apple's fierce competition too much for Avid to handle? Only time will tell, but Schloss made decisions on these types of stocks daily to build a successful portfolio.

#### **Statistics**

Table 4 lists the median data points on a number of statistics for the Schloss passing companies as a whole, all exchange-listed stocks and the stocks in the S&P 500. The median price for Schloss stocks is very close to the median 52-week low, only 8.0% above the low. Compare this to all exchange-traded stocks, whose current median price is 47% higher than the median 52-week low, and S&P 500 stocks at 34% higher.

The Schloss stocks also have a much lower median book value per share than S&P 500 stocks (6.65 versus 13.36) and a much higher insider ownership percentage than

both exchange-listed and S&P 500 stocks (35.1% compared to 9.3% and 1.0%, respectively).

The stocks passing the Schloss screen are very small, as measured by market capitalization. The median market cap for the current set of passing companies is only \$19.1 million, placing them in the nano-cap range. Even the typical exchangelisted stock has a market cap of over \$200 million. Such small firms require extra attention before you buy them—specifically, to liquidity (daily trading volume) and bid-ask spreads.

As seen in Table 3, most of the companies passing the Schloss screen have negative or very low long-term growth rates in earnings per share and sales. While one might argue that some of this can be attributed to the current investing environment and that many solid companies are seeing declines in sales and earnings, the numbers tell a different story.

In fact, Table 4 shows that the long term growth rates for earnings and sales are much lower for the Schloss stocks compared to exchange-traded and S&P 500 stocks. Over the last five years, the Schloss stocks have seen negative growth in earnings per share (–11.1%) and very small

growth in sales (2.7%). Compare this to all exchange-listed stocks, which have seen 4.7% growth in earnings and 12.7% in sales. Similarly, S&P 500 stocks have grown earnings 11.1% and sales 10.1% in the past five years.

### Conclusion

The Schloss technique is effective in finding smaller stocks with very low price-to-book-value ratios, prices near a 52-week low and a much higher level of insider ownership when compared to exchange-listed stocks and stocks in the S&P 500.

However, as we have shown, the size of these companies coupled with their historical revenue and earnings performances require a good amount of patience from investors. Schloss was a successful investor because he laid out criteria, studied the facts, ignored emotion and rosy management forecasts, and knew when it was time to sell. He showed that the key to any successful stock screening strategy is additional research. Blindly buying stocks that meet a small number of criteria does not equal great performance.

A stock can be "cheap" for a number of reasons. It is up to investors to discover the reasons and invest based on solid research and analysis of the company's financial state.

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